

## REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 9, and 10 are requested to be cancelled.

Claims 1, 2, 5, 11, 12, and 14 are currently being amended.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-8 and 11-15 are now pending in this application.

### Allowable Subject Matter

Applicant appreciates the indication of allowable subject matter in claims 5 and 11. As suggested by the Examiner, Applicant has rewritten claims 5 and 11 in independent form including all of the limitations of the base claim and any intervening claims. Further, Applicant has rewritten claim 5 to overcome the claim objections and rejections under 35 U.S.C. § 112, as described below. Accordingly, claims 5 and 11 are now in condition for allowance.

### Claim Objections

Claims 1-8 were objected to in the office action for certain informalities. As to the objections to claims 1, 12 and 14, Applicant has amended the claims to correct the informality. As to the objection to claim 5, the Office Action objects to the claim because Ec and No are allegedly not defined. Applicant notes that Ec and No are well understood by those skilled in the art to represent signal and noise levels, respectively. However, in order to expedite prosecution, Applicant has amended claim 5 to define these well understood terms. Accordingly, the objections to the claims should now be withdrawn.

Claim Rejections under 35 U.S.C. § 112

Claims 1-8 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Office Action argues that the phrase “added input to the plurality of channel measurements” is unclear. Applicant has amended the claim language to recite “added input to the combining a plurality of channel measurements” to more clearly recite the invention.

Further, the Office Action alleges that the second step of claim 1 does not make clear the intended function of feeding back the output. Applicant respectfully notes that at least one function of this feedback is sufficiently described in the specification. See e.g., Specification, paragraph [0089]. There is no requirement to recite the function of the step in the claim.

Finally, Applicant has amended claim 2 to more clearly recite the terms  $S_1$ ,  $S_2$  and  $S_T$ .

Accordingly, the rejections under 35 U.S.C. § 112 should now be withdrawn.

Claim Rejections under 35 U.S.C. § 102

Claim 9 was rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,347,580 to Bond (hereinafter “Bond”). Applicant has canceled claim 9 without prejudice or disclaimer. The rejection of claim 9, therefore, is moot.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 4 and 6-8 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,164,959 to Cai et al. (hereinafter “Cai”) in view of U.S. Patent No. 4,550,414 to Guinon et al. (hereinafter “Guinon”). Applicant respectfully traverses this rejection for at least the following reasons.

As acknowledged by the Examiner, Cai fails to teach or suggest “acquiring a signal symbol ... without addressing every timing hypothesis individually via a correlation operation.” The Examiner cites Guinon as disclosing this limitation of claim 1 and argues that “it would have been obvious to one of ordinary skill in the art to employ the correlation

range limiting technique discussed in Guinon with the detection loop taught by Cai.” Applicant respectfully disagrees.

Rather than rendering the combination obvious, Guinon, in fact, teaches away from the combination. Applicant notes that the portion of Guinon cited by the Examiner appears in the “Background of the Invention” section of Guinon. Rather than exploiting the method disclosed in the “Background” section, Guinon teaches the use of an adaptive weighting system to decrease signal acquisition time. In this light, one of ordinary skill in the art would be guided away from the combination recited in claim 1.

Accordingly, claim 1 is not obvious and is patentable. Claims 4 and 6-8 depend, either directly or indirectly, from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Cai in view of Guinon and further in view of the article by Loeliger et al. Claims 2 and 3 depend, either directly or indirectly, from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Claim 10 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bond in view of Guinon. Applicant has canceled claim 10 without prejudice or disclaimer. The rejection of claim 9, therefore, is moot.

Claim 12 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bond in view of U.S. Patent Application Publication No. 2003/0147365 to Terasawa et al. (hereinafter “Terasawa”). Claim 12 has been amended to depend from allowable claim 11 and is, therefore, patentable for at least that reason, as well as for additional patentable features when that claim is considered as a whole.

Claim 13 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2002/0094017 to Wang (hereinafter “Wang”) in

view of Bond. Applicant respectfully traverses this rejection for at least the following reasons.

In accordance with an embodiment of the invention as recited in claim 13 and as exemplarily described in Figure 16, a 2x2 permute block 86 supplies the demodulator 88 with on-time samples, and the searcher 89 gets either the odd phase or the even phase samples, whichever is not used by the demodulator 88. Accordingly, claim 13 recites “providing digital samples from the even phase group of sample buffers or the odd phase group of sample buffers to a searcher when not needed by the demodulator.”

Contrary to the assertion by the Examiner in the Office Action, Wang fails to teach or suggest this feature of claim 13. Wang discloses that “a signal output 202 is sent to a multipath signal searcher block 204 and to a finger demodulator/combiner block 206.” There is no teaching or suggestion of providing samples to the searcher when not needed by the demodulator. Wang teaches sending of samples to both the demodulator and the searcher at all times.

Thus, Wang fails to teach or suggest at least this feature of claim 13. Bond also does not teach or suggest this feature. Accordingly, claim 13 is patentable.

Claims 14 and 15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wang in view of Bond and further in view of U.S. Patent No. 4,484,028 to Kelly et al. (hereinafter “Kelley”). Claims 14 and 15 depend, either directly or indirectly, from allowable claim 13 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment,

to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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FOLEY & LARDNER LLP  
Customer Number: 30542  
Telephone: (858) 847-6735  
Facsimile: (858) 792-6773

By 

G. Peter Albert Jr.  
Attorney for Applicant  
Registration No. 37,268